

more remote from the columellar nodule than is the case with the outer tooth of *suppressus*. Other characters as in *Z. suppressus*. Alt. 3.4 mm., diam. 6 mm.; slightly over 6 whorls.

In some individuals this two-toothed stage is seen in somewhat smaller shells, but the strong callous lining of the throat is usually not well developed. At an earlier stage, diam. 4.3 mm., more or less, the columellar tooth is conspicuously bifid, or in some shells trifid; there is a long and high entering lamella within the outer lip with generally one or two small laminae above it, and the callous lining is heavy. In old individuals of *Z. suppressa* there is no tooth within the outer lip, only the columella nodule remaining. The small laminae above the large outer tooth of the young stage disappear in *suppressus* at a much earlier age than in *virginica*.

Like *Anguispira clarki* Van., this appears to be a form belonging to a northward extension of the "Cumberland subregion" of Binney. It will probably turn out to be generally distributed in the Shenandoah valley.

Mr. Clark found the following species associated with *Z. s. virginica* at New Market:

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| <i>Polygyra albolabris</i> (Say) | <i>Polygyra hirsuta</i> (Say) |
| <i>Polygyra thyroidus</i> (Say) | <i>Discus patula</i> (Desh.) |
| <i>Polygyra tridentata</i> (Say) | <i>Helicodiscus parallelus</i> (Say) |
| <i>Polygyra fallax</i> (Say) | <i>Retinella burringtoni</i> (Pils.) |
| <i>Polygyra fraudulentus</i> (Pils.) | <i>Zonitoides arboreus</i> (Say) |
| <i>Haplotrema concavum</i> (Say) | |

A single example of *Z. s. virginicus* was taken at Staunton, Augusta Co., Va. Also the two introduced species *Helix nemoralis* L. and *Oxychilus draparnaldi* (Beck).

LAND SHELLS FROM TEXAS AND NEW MEXICO

BY H. A. PILSBRY

POLYGYRA CHISOSENSIS, new species.

The shell is depressed, about like *P. texasiana* in shape, the umbilicus contained about $4\frac{3}{4}$ times in the diam.; light brown, feebly translucent, of 5 convex whorls, the last equably rounded at periphery, descending rather deeply in front, constricted behind the outer and basal margins of lip. Surface glossy, the first whorl smooth, the rest with very low, unequal ripples of growth,

and close behind the peristome with a group of sharp but fine striae. Under the microscope a minute granulation is seen on post-embryonic whorls, weak or nearly effaced on the last whorl. The aperture is strongly oblique, the outer and basal margins of the peristome reflected, the basal conspicuously recurved. Within the outer margin there is a broad, inwardly bent, concave ledge, which is thickened at its lower margin into a rounded, projecting tooth. In the basal margin an erect, narrower tooth stands. There is on the parietal wall a biramose or v-shaped tooth, the branch towards the columella being very high and longer than that towards the upper lip-insertion. A short distance within, a callous tubercle stands on the wall of the columellar axis. Height 5 mm., diam. 11.8 mm.

Texas: Chisos Mts., Brewster Co., the type 166097 ANSP from a northeast slope N. E. of Naill's ranch house, coll. by Ferriss and Pilsbry, 1922.

P. texasiana has stronger sculpture and differs in shape of the tooth in the outer lip, which in *P. chisosensis* forms a concave, inflected plate. The smoothish western forms of *texasiana* have coarser riblets behind the lip, besides the difference in teeth. All forms of that species differ by lacking an internal tubercle on the columella. *P. mooreana* has a callous ridge on the columella, within, doubtless homologous with the tubercle of *P. chisosensis*.

It occurs in stony talus slopes in some abundance, and was hibernating when we were there late in November. The extremes of size in a large lot are 9.5 to 13.4 mm. diam.

POLYGYRA CHISOSENSIS DISCOBOLUS, new subsp.

The shell is flatter and usually larger than *P. chisosensis*, the umbilicus wider, contained $3\frac{2}{3}$ times in the diam. The parietal tooth is further from the columellar lip, which does not bend forward at its insertion. Internal tubercle weaker.

Height 4.8 mm., diam. 14.2 mm. Type.

“ 4.5 mm., diam. 12.3 mm. Smallest shell.

Foothills of the south side of the Chisos Mts., in the Blue Creek region, Brewster Co., Texas. Type 144355 ANSP., coll. by J. H. Ferriss, 1925.

ASHMUNELLA ORGANENSIS, new species.

The shell is depressed, the narrow umbilicus contained 6 (to 7) times in the diam.; thin; buckthorn brown, translucent; of 5 to $5\frac{1}{3}$ moderately convex whorls, the last rounded at the periphery,

above the middle, descending very little in front, constricted behind the lip. Surface *very glossy*; the embryonic $1\frac{1}{2}$ whorls appear smooth except for weak radial wrinkles below the suture, but under the microscope close spiral lines of punctures are seen; following 1 or $1\frac{1}{2}$ whorls have weak growth wrinkles and an indistinct pattern of low papillae. The remaining whorls have weak, fine growth wrinkles, which become rather close, sharp striae behind the prelabial constriction, the base more glossy with the striation weaker. All post-embryonic whorls have a microscopic sculpture of close spirals, which appear more or less punctate under sufficient magnification. The aperture is rounded-lunate. Peristome faintly flesh tinted, reflected, a little thickened within, with a low, tubercular tooth in the outer part of the basal lip. Parietal callus thin, transparent, bearing a very weak, short, obliquely placed parietal tooth.

Height 5.8 mm., diam. 13 mm. Type. Other topotypes measure from 6.4×12 mm. to 7×14 mm.

New Mexico: western slope of the Organ Mts. above Dripping Spring (La Cueva), in the N.-E. branch of the canyon, estimated elevation 7000 to 7500 ft. Type 165909 ANSP., coll. by Ferriss and Pilsbry, 1922.

The brilliant gloss of "live" shells is a conspicuous feature. The basal tooth is often reduced to a mere vestige; when strongly developed there is usually also the trace of an inner basal tooth. The parietal tooth is variable, rarely distinct, and entirely wanting in a few shells.

There seems to be no nearly related species. Probably other more fully toothed forms may turn up in the Organ Range, which has been explored for shells only in one place; if so, they may give a clue to the relationships of *A. organensis*.

It occurred in long, narrow slides of small stone on a very steep incline. There is sparse growth of scrub oak, scrub maple, and a few yellow pines, pinyons and cedar. Though this station is not very high, it is one of the steepest climbs anywhere.

THE TYPE OF POLYGYRA SAY

BY HARALD A. REHDER

Pilsbry (Proc. ANSP., vol. 82, 1930, p. 311) credits the type designation for *Polygyra* to Herrmannsen (Ind. Gen. Malac. Prim., vol. 2, 317 (1847)) who gave *Helix septemvolva* Say as